

Amendments to the Claims

Please amend the claims as set forth in the following listing. This listing of claims will replace all prior versions, and listings, of claims for the present application:

Claims:

- 1-18. (CANCELED)
19. (Previously presented) A digital, fiber optic switching and distribution system, comprising:
- a first fiber optic concentrated logical ring configured as a physical star communication network to a plurality of signal sources;
 - a first plurality of connection devices coupled to the first fiber optic concentrated logical ring, each of the first plurality of connection devices receiving analog signals from a plurality of signal sources and converting the received analog signals into digital data signals;
 - a first central hub coupled to provide the center of the physical star communication network for the first fiber optic concentrated logical ring and receiving the digital data signals for routing to the first plurality of connection devices;
 - a second fiber optic concentrated logical ring configured as a physical star communication network to a plurality of signal sources;
 - a second plurality of connection devices coupled to the second fiber optic concentrated logical ring, each of the second plurality of connection devices receiving analog signals from a plurality of signal sources and converting the received analog signals into digital data signals; and
 - a second central hub coupled to provide the center of the physical star communication network for the second fiber optic concentrated logical ring and receiving digital data signals for routing to the second plurality of connection devices, the second central hub coupled to the first central hub as a signal fiber optic switching and distribution system;
- wherein the first and second plurality of connection devices are configured to provide communications among a plurality of signal sources;
- wherein the first and second central hubs comprise a ring network connecting a plurality of fiber optic network connections coupled to the plurality of connection devices; and
- wherein the first and second central hubs are configured to communicate the digital data signals to each of the audio connection devices in the ring using synchronous time division multiplex access (TDMA) communications.

20. (Previously presented) The digital, fiber optic switching and distribution system as in Claim 19 further comprising:

a plurality of additional fiber optic concentrated logical rings each configured as a communication network to a plurality of signal sources;

a plurality of additional pluralities of connection devices, each of the additional plurality of connection devices coupled to one of the additional fiber optic concentrated rings, each of the additional plurality of connection devices receiving analog signals from a plurality of signal sources and converting the received analog signals into digital data signals; and

a plurality of additional central hubs individually coupled to provide the center of the physical star communication network for one of the additional plurality of fiber optic concentrated logical rings and receiving digital data signals for routing to the connection devices, each additional central hub coupled to at least one central hub as a signal fiber optic switching and distribution system.

21. (Previously presented) The digital, fiber optic switching and distribution system as in Claim 19 wherein the first and second central hubs each comprises dual counter-rotating fiber optic rings for a single point failure protection.

22. (Original) The digital, fiber optic switching and distribution system as in Claim 19 further comprising a first plurality of control panels individually coupled to one of the first plurality of connection devices; and a second plurality of control panels individually coupled to one of the second plurality of connection devices.

23. (Original) The digital, fiber optic switching and distribution system as in Claim 22 wherein each of the first and second plurality of control panels has access to each of the first and second plurality of connection devices.

24. (Original) The digital, fiber optic switching and distribution system as in Claim 19 wherein the first and second fiber optic concentrated rings each comprises a plurality of subloops equal in number to at least the plurality of first or second connection devices, respectively.

25. (Original) The digital, fiber optic switching and distribution system as in Claim 24 wherein the first and second central hubs each comprises a plurality of ports individually coupled to a subloop of the first or second fiber optic concentrated ring, respectively.

26. (Original) The digital, fiber optic switching and distribution system as in Claim 19 wherein each of the first and second plurality of connection devices comprises a digital signal processor for selective mixing of signals received from the at least one signal source.

27. (Original) The digital, fiber optic switching and distribution system as in Claim 19 wherein the first and second central hubs each further comprises a bus synchronizer for synchronizing the routing of data frame through the respective first or second fiber optic concentrated ring.